CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.:CTCE/BBMP/W.No.07/SC/BC/Bitumen/2012-13 12.04.2013

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE AASHTO T 164 & AASHTO T 30

CLIENT	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	**M/s. Sathya Constructions,** Contractor, Bangalore.
NAME OF THE WORK	Improvements to Roads and Drains from NH-7 to Jakkur Kaval Road in Ward No.07 , BBMP, Bangalore.
REFERENCE	AEE/KH/WO/141/2012-13 Dated: 18.03.2013
SAMPLE I/D	Jakkur Kaval Road Ward No.07
DATE OF TESTING	12.04.2013

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474	474.5
3. Weight of Asphalt and Mineral matter Extracted, g	26	25.5
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	26	25.5
7. Bitumen content in %	5.20	5.10
8. Average	**5.15**	

GRADATION AFTER EXTRACTION

TABLE - 1

SIEVE SIZE	Percent Passing, %		JOBMIX
mm	Sample 1	Sample 2	Gradation
19	100.00	100.00	100
13.2	87.26	86.52	79-100
9.5	79.63	82.66	70-88
4.75	59.47	62.31	53-71
2.36	50.26	49.63	42-58
1.18	43.53	39.14	34-48
0.6	31.71	27.95	26-38
0.3	22.49	23.61	18-28
0.15	18.78	15.28	12-20
0.075	5.32	6.21	4-10

Civil-Tech Consultants & Engineers Bangalore

Note:

⇒ This test report should not be reproduced except in full, without written approval of the laboratory

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory

⇒ Any Query regarding the report must be reported within 15 days from the date of testing.

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Job No.: CTCE/BBMP/W.No.07/SC/BM/Bitumen/2012-13 05.04.2013

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS MACADAM MIX

AASHTO T 164 & AASHTO T 30

CLIENT	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	**M/s. Sathya Constructions,** Contractor, Bangalore.
NAME OF THE WORK	Improvements to Roads and Drains from NH-7 to Jakkur Kaval Road in Ward No.07 , BBMP, Bangalore.
REFERENCE	AEE/KH/WO/141/2012-13 Dated: 18.03.2013
SAMPLE I/D	Jakkur Kaval Road Ward No.07
DATE OF TESTING	05.04.2013

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	482	483
3. Weight of Asphalt and Mineral matter Extracted,	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	18	17.00
7. Bitumen content in %	3.60	3.40
8. Average	**3.50**	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
26.5	0	0	0	100	100
19	41.5	8.61	8.61	91.39	90-100
13.2	168	34.85	43.46	56.54	56-88
4.75	165	34.23	77.70	22.30	16-36
2.36	43	8.92	86.62	13.38	4-19
0.3	30	6.22	92.84	7.16	2-10
0.075	8	1.66	94.50	5.50	0-8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
26.5	0	0	0	100	100
19	31	6.20	6.20	93.80	90-100
13.2	162	32.40	38.60	61.40	56-88
4.75	172	34.40	73.00	27.00	16-36
2.36	75.63	15.13	88.13	11.87	4-19
0.3	26	5.20	93.33	6.67	2-10
0.075	6	1.20	94.53	5.47	0-8

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Job No.: CTCE/BBMP/W.No.07/SC/WMM/Gradation/2012-13

23.03.2013

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **M/s. Sathya Constructions**, Contractor, Bangalore.

Name of Work : Improvements to Roads and Drains from NH-7 to Jakkur Kaval Road in Ward No.07 , BBMP, Bangalore.

Reference : AEE/KH/WO/141/2012-13 Dated: 18.03.2013

Date of Testing : 23.03.2013

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **25315**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	985	985	3.9	96.1	95-100
22.4	6195	7180	28.4	71.6	60-80
11.2	5525	12705	50.2	49.8	40-60
4.75	4265	16970	67.0	33.0	25-40
2.36	3560	20530	81.1	18.9	15-30
0.600	2055	22585	89.2	10.8	8-22
0.075	2445	25030	98.9	1.1	0-8

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